

## Darleane Hoffman and Wojciech Zurek named 2014 Los Alamos Medal recipients

April 23, 2015



LOS ALAMOS, N.M., April 23, 2015—Darleane Hoffman and Wojciech Zurek are 2014 Los Alamos Medal recipients, the highest honor bestowed by the Laboratory.

"Darleane Hoffman's distinguished career and her contributions to nuclear science and actinide chemistry make her a trailblazer and role model for all women in science, while Wojciech Zurek's world-renowned work in quantum theory has inspired Nobel Laureates and provided a bridge between classical and quantum mechanics," said Laboratory Director Charlie McMillan. "Los Alamos does not necessarily award a medal each year, preferring instead to wait to bestow the honor only upon a prestigious subset of nominees who have demonstrated the highest levels of scientific achievement. This year's recipients are well worth the wait."

The Los Alamos Medal was established in 2001 to honor those who have contributed to the Laboratory at the highest level. The Los Alamos Medal recognizes individuals who have made

- a contribution that changed the course of science
- a major enhancement of the Laboratory's ability to accomplish its mission
- a significant impact on Laboratory sustainability and/or
- established a major direction for the Laboratory and/or the nation.

Hoffman and Zurek join past Los Alamos Medal recipients Hans Bethe and Harold Agnew (2001), George Cowan and Louis Rosen (2002), Nerses "Krik" Krikorian (2003), Francis "Frank" Harlow and Conrad Longmire (2004), Keith Boyer and Stirling Colgate (2006), and Robert Cowan and Sig Hecker (2008) in receiving the prestigious recognition.

Hoffman was recognized for among other accomplishments her exceptionally distinguished career in nuclear science, actinide chemistry and separations and her pioneering work at the frontier of the periodic table.

Zurek received the Los Alamos Medal for among other accomplishments his "pioneering work on decoherence that established the bridge between the quantum and classical realms," and for being a "seminal and profound contributor to quantum cryptography of direct importance to national security."

## About Darleane Hoffman

Hoffman began her prestigious career at Los Alamos Scientific Laboratory in 1953 as a staff member and project leader in the former Field Testing Division. Hoffman spent 25 years at Los Alamos, leaving to accept a Guggenheim Fellow appointment at Lawrence Berkeley National Laboratory. She returned to Los Alamos in 1979 where she was Nuclear Chemistry and Isotope and Nuclear Chemistry Division leader. Hoffman was named a Laboratory Fellow in 1990. She continues to provide service to the Laboratory today as a consultant.

Hoffman left Los Alamos in 1984 to become a professor in the Department of Chemistry at the University of California, Berkeley, where she remains and over the years has held a number of posts. Simultaneously, Hoffman also was the charter director and now a senior research adviser at Lawrence Livermore National Laboratory's Seaborg Institute for Transactinium Science.

Hoffman's awards are many and include: American Physical Society Fellow (1986); American Association for the Advancement of Science Fellow (1994); U.S. National Medal of Science recipient (1997); American Chemical Society's Priestley Medal (2000); Women in Technology International Hall of Fame (2000); and numerous recognitions from foreign countries and scientific associations.

## About Wojciech Zurek

Zurek has been called the "best known quantum theorist in the world at present." He is a leading world authority on quantum theory, especially decoherence and on the physics of quantum and classical information. His pioneering work on decoherence established a bridge between the quantum and the classical realms. Zurek also demonstrated (with William Wootters, *Nature*, 1982) that an unknown quantum cannot be cloned, which is now widely known as the No-Cloning Theorem.

Zurek joined the Laboratory as an Oppenheimer Fellow in 1984. He was selected as a Laboratory Fellow in 1996.

For his path-breaking contributions he has been awarded many prestigious prizes. In 2005 he won the Alexander von Humboldt Prize, and in the 2004/2005 academic year he was a Phi Beta Kappa Visiting Lecturer. In 2009 he received the Marian Smoluchowski Medal (highest prize of the Polish Physical Society), and in 2010 the Albert Einstein Professorship Prize of Ulm University, Germany. Zurek is a fellow of the American Physical Society and also was awarded the Order of Polonia Restituta (similar to the Knighthood in the United Kingdom) in 2012. He has authored about 250 papers (approaching 18,000 citations).

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